UNIT IV

ADDITIONAL TOPICS

Module 3

DATA CONSIDERATIONS

DATA CONSIDERATIONS

Module Preview:

Introduction

- **Introduction**
- **Data Sources**
- **Data use and misuse**
- **Review and Summary**

DATA CONSIDERATIONS

Module Objective:

Introduction

This module will provide information on issues related to the use of various data sources in an RCM analysis effort

1. **Identify data sources that are useful for RCM analysis**
2. **Understand how data sources should be used and how they can be misused**

DATA CONSIDERATIONS

Primary Sources

Data Sources

- **Operator's and Maintenance Manuals**
- **Drawings**
- **Troubleshooting charts or diagrams**
- **Design Specifications**
- **Functional Block Diagrams**
- **CMMS data (any computerized equipment/ failure/maintenance data)**
- **Work orders (if not in a CMMS)**
- **Spare parts purchasing data**
- **Operator/Maintainer/Engineer/Vendor Tech Rep Knowledge**
- **Operator/Maintainer logs**
- **Standards or regulatory requirements related to specific equipment**

DATA CONSIDERATIONS

CMMS Data

Data Use and Misuse

For discussion purposes: CMMS (3M) data is any automated or compiled data on failures, work orders, or maintenance actions.

- **May use codes or keywords to categorize failures or maintenance actions**
- **Sometime lacks specificity for detailed analysis**

DATA CONSIDERATIONS

CMMS Data

Data Use and Misuse

One of the most common errors in RCM analysis is the misuse of CMMS Data.

- **Focus on non-specific data versus SME knowledge and**

  other specific sources can lead to superficial analysis

  - **Full consequences of failure often not clear**
- **Results in inefficient analysis**
  - **May force the analysis to too low a level**
  - **Tends to increase the number of insignificant failure modes considered**

DATA CONSIDERATIONS

CMMS Data

Data Use and Misuse

Correct uses of CMMS data:

- **Failure rate or probability of failure calculations**
- **Understanding of trends, maintenance task effectiveness, reliability characteristics, etc.**
- **Identifying/Prioritizing problem items for analysis**
- **As a check for completeness of identified failure modes**

Most common mistake:

- **Using CMMS data as a primary means of determining failure modes**
  - ➢ **In most cases there is not enough detail to separate the important failures from the unimportant**

DATA CONSIDERATIONS

Review and Summary

- Use CMMS data to support other sources and not vice-versa

- Establishing what data is available, how it will be used, and providing for access to it prior to beginning analysis is a key step to a successful analysis…

DATA CONSIDERATIONS

Review and Summary

Module Objective

- Provide information on the use of various data sources in an RCM analysis effort

Introduction

- Learning Objectives

Data Sources

Data use and misuse

Review and Summary

End of Module

up next.....

Course Review